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SEVENTH FLOOR
CLEVELAND, OH 44114

EXAMINER

GELIN, JEAN ALLAND

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/696,644	Applicant(s) BENCO ET AL.	
	Examiner Jean A. Gelin	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the Applicant's arguments and amendments filed on November 16, 2007 in which claims 1, 12, and 18 have been amended. Claims 1-27 are currently pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 5, 7, 11-13, 16, 17, and 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhogal et al. (US 2003/0013441).

Regarding claim 1, Bohagal teaches a method and system for automatically providing credit to an account of a communications services subscriber when communications services of the subscriber are interrupted (i.e., method and system to conveniently obtain credit for dropped calls or interruption in wireless network [0005]), comprising: detecting an interruption in communication services of the subscriber (i.e., typically the network (base station) knows when a call is dropped and the base notifies the billing center to avoid unnecessary charge, detection of dropped calls is inherently present in [0006]); generating a communications interrupted message describing the detected interruption in communication services of the subscriber (i.e., in order for the

billing center reimburse the subscriber, the base station that provide communication channel to subscriber has to inform the billing center information about the dropped calls to reimburse the subscriber, this is inherent in transmitting dropped call characteristics to the provider [0007]); transmitting the communications interrupted message (i.e., dropped calls characteristic is transmitted to provider [0007]; generating a credit account message based on the communications interrupted message (i.e., the provider or billing center is based information received from the based to reimburse the subscriber inherently present in "based on characteristic of dropped calls [0026]-[0029]"); transmitting the credit account message to a billing center (i.e., service provider for reimbursement procedure [0026]-[0029]; and applying a credit to the account of the subscriber based on the credit account message (i.e., dropped calls characteristic is transmitted to provider and dropped calls are evaluated and appropriate reimbursement made by the provider [0028]-[0029]).

Regarding claim 4, Bhogal teaches noting a lack of response from the user equipment of the subscriber ([0020]); noting a time of the lack of response ([0020]); and, declaring the communication services of the subscriber interrupted when a difference between the noted time and a current time exceeds a predetermined value ([0020]-[0021]).

Regarding claims 5, 7, Bhogal teaches detecting the interruption in the communication services of the subscriber at a cell site serving the user equipment of the subscriber (i.e., unintentional termination of the connection (a call dropped) occurs when service provider no longer receives the carrier signal of the connected party,

typically the base station should detect the occurrence of a call dropped, process, and forward the information to a billing center for reimbursement, [0020]-[0021]).

Regarding claim 11, Bhogal teaches determining a credit type preference of the subscriber; and applying a credit to the account of the subscriber based on the determined credit type preference of the subscriber ([0005], [0026], and [0028]).

Regarding claim 12, the claim contains the features that can achieve the same result with the feature of claim 1. Therefore, the claim is rejected for the same reasons set forth in the rejection of claim 1 above.

Regarding claim 13, Bhogal teaches a subscriber database including a record indicated a credit type preference of the subscriber wherein interruption event processor is operative to read the record indicating the credit type preference of the subscriber and direct an application of a credit according to the read preference ([0029]).

Regarding claim 16, Bhogal teaches the interruption event processor is operative to calculate a credit amount based on information received in the description of the dropped call event (evaluating dropped calls for appropriate reimbursement ([0026], [0028]-[0029])).

Regarding claim 17, Bhogal teaches the interruption event processor is further operative to calculate a credit amount based on information received in the description of the dropped call event and information received from a subscriber record associated with the subscriber (i.e., the reason of the dropped call is determined for reimbursement purpose, a processor is inherently included to process the data [0026]-[0029])).

Regarding claim 18, the claim contains the features that can achieve the same result with the feature of claim 1. Therefore, the claim is rejected for the same reasons set forth in the rejection of claim 1 above.

Regarding claim 24, Bhogal teaches means for noting a signal strength from the user equipment of the subscriber ([0026]-[0029]); means for comparing the signal strength to a threshold signal strength ([0026]-[0029]); and, means for declaring the communication services of the subscriber interrupted when the signal strength falls below the threshold signal strength ([0026]-[0029]).

Regarding claim 25, Bhogal teaches means for noting a signal strength from the user equipment of the subscriber ([0026]-[0029]); means for comparing the signal strength to a threshold signal strength ([0026]-[0029]); and, means for declaring the communication services of the subscriber interrupted when the signal strength falls below the threshold signal strength for a predetermined period of time ([0026]-[0029]).

Regarding claim 26, Bhogal teaches means for noting a signal strength from the user equipment of the subscriber ([0026]-[0029]); means for comparing the signal strength to a threshold signal strength ([0026]-[0029]); and, means for declaring the communication services of the subscriber interrupted when the signal strength falls below the threshold signal strength with at least a predetermined frequency ([0026]-[0029]).

Regarding claim 27, Bhogal teaches means for noting a signal strength from the user equipment of the subscriber ([0026]-[0029]); means for comparing the signal strength to a threshold signal strength ([0026]-[0029]); and, means for declaring the

communication services of the subscriber interrupted when the signal strength falls below the threshold signal strength with a predetermined number of times ([0026]-[0029]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 6, 8-10, 14, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhogal et al. in view of Mullins et al. (US 5,677,945).

Regarding claims 2, 6, 14, and 19, Bhogal teaches all the limitations above except generating a subscriber notification message describing the credit; and, transmitting the subscriber notification message to user equipment of the subscriber.

However, the preceding limitation is known in the art of communications. Mullins teaches sending messages to subscribers on card balances which approach a threshold amount, the system announces to the subscriber when a threshold amount has been exceeded (col. 2, lines 9-39). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Mullins within the system of Bhogal in order to announce caller the remaining amount of money available to him and improve the performance of telecommunications systems.

Regarding claims 8, Bhogal teaches all the limitations above except generating a call data record applying credit to the account of the subscriber.

However, the preceding limitation is known in the art of communications. Mullins teaches providing announcement to a caller when a credit balance approaches to a threshold amount corresponding to modifying the amount of money on credit card ([0013]-[0014]). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Mullins within the system of Bhogal in order to properly handle credit and debit transaction on a telecommunications network in a way which reduces billing communication, yet which enables accurate monitoring of call balance.

Regarding claims 9, 10, they are rejected for reasons set forth in the rejection of claim 8 above.

6. Claims 3, 7, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhogal et al. in view of Mullins further in view of Satapathy (US 2004/0203607).

Regarding claims 3, 7, 15, and 20, Bhogal in view of Mullins teaches all the limitations above except storing the generated subscriber notification until communications services are re-established with the user equipment of the subscriber.

However, the preceding limitation is known in the art of communications. Satapathy teaches the mobile station determines that it has experienced a dropped call; in response, the mobile station allows a user to continue communicating, such as by

recording the user's speech; the mobile station plays out the recorded speech, such as upon reestablishment of the call ([0009] and [0032]). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Satapathy within the system of Bhogal and Mullins in order to allow participants in dropped calls to continue communicating, and play the recorded communications upon re-establishment of the call.

Response to Arguments

7. Applicant's arguments filed 11/06/07 have been fully considered but they are not persuasive.

As per claim 1, the Applicant argues that Bhogal fails to teach generating a credit account message based on the communications interrupted message, transmitting the credit account message to a billing center and applying a credit to the account of the subscriber based on the credit account message. However, the Examiner disagrees with the preceding argument. Bhogal teaches a method to conveniently obtain credit for dropped calls or interruptions in wireless network [0005]. It is common for a cellular communications system as disclosed in Bhogal to have a mobile station, a base station, and a billing center. Typically the network (base station) knows when a call is dropped and the base notifies the billing center to avoid unnecessary charge, it is inherent that the detection of dropped calls is present in [0006]). In order for the billing center reimburse the subscriber, the base station that provide communication channel to subscriber has to inform the billing center information about the dropped calls to reimburse the subscriber. Correspondently, generating a communications interrupted

message describing the detected interruption in communication services of the subscriber is inherent in transmitting dropped call characteristics to the provider [0007]). Transmitting the communications interrupted message is read on dropped calls characteristic is transmitted to provider [0007]. The provider or billing center is based information received from the based to reimburse the subscriber inherently present in "based on characteristic of dropped calls [0026]-[0029]" corresponding to generating a credit account message based on the communications interrupted message. Service provider receives information about subscriber the dropped calls reimbursement procedure [0026]-[0029] corresponding to transmitting the credit account message to a billing center; and applying a credit to the account of the subscriber based on the credit account message (i.e., dropped calls characteristic is transmitted to provider and dropped calls are evaluated and appropriate reimbursement made by the provider [0028]-[0029]). It is clear that information from the mobile has to be reproduced at the base station, and transferred to a billing center for reimbursement of dropped calls. Therefore, the Examiner maintains the rejection and it is made final. The Applicant further argues that the transmission of log

As per claims 5, 7, the Applicant argues that Bhogal fails to teach detecting the interruption in the communication services of the subscriber at a cell site serving the user equipment of the subscriber. However, the Examiner disagrees with the preceding argument. Both the base station and the cellular telephone know when a call is dropped. Bhogal teaches unintentional termination of the connection (a call dropped) occurs when service provider no longer receives the carrier signal of the connected

party, typically the base station (cell site) should detect the occurrence of a call dropped, and forward the information to a billing center for reimbursement, [0020]-[0021]) and the hang-up sequence typically may include a hang-up message or some amount of specific transmitted code that indicates to the service provider ([0019]). The Examiner maintains the rejection and it is made final.

The Examiner agrees with the applicant's arguments with respect to claims 11 and 13, and the rejection has been withdrawn.

As per claim 17, the Applicant argues that Bhogal fails to teach the interruption event processor is further operative to calculate a credit amount based on information received in the description of the dropped call event and information received from a subscriber record associated with the subscriber. However, the Examiner disagrees with the preceding assertion. Bhogal teaches different events of dropped calls to determine whether the user is allowed to be credited or reimbursed for the dropped calls; typically a processor is inherently present to process the event and calculate the credit [0026]-[0029]). Therefore, the rejection is maintained and is made final.

With regard to claims 24-26, the Applicant argues that Bhogal fails to teach the claim limitations. However, the Examiner disagrees with the preceding argument. Bhogal teaches a system that allows the network to know whether the dropped call is due to battery failure or signal strength. Inherently, the system includes the means to establish the difference between dropped call due to battery failure and dropped call due to weak signal to determine whether or not to reimburse the user. Therefore, the rejection is maintained and is made final.

With regard to claims 2, 6, 8-10, 14, and 19, the Applicant argues that Bhogal fails to teach generating a subscriber notification message describing the credit; and, transmitting the subscriber notification message to user equipment of the subscriber.

The Examiner disagrees with the preceding arguments. The preceding limitation is known in the art of communications. Both Bhogal and Mullins are in the same field of endeavor, and teach a billing system. Mullins teaches sending messages to subscribers on card balances which approach a threshold amount, the system announces to the subscriber when a threshold amount has been exceeded (col. 2, lines 9-39). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Mullins within the system of Bhogal in order to announce caller the remaining amount of money available to him and improve the performance of telecommunications systems. The motivation of combining Bhogal and Mullins is to inform the user about the remaining time to make calls. Therefore, the rejection is maintained and is made final.

With regard to claims 3, 15, and 20, the Applicant argues that Bhogal fails to teach storing the generated subscriber notification until communications services are re-established with the user equipment of the subscriber.

The Examiner disagrees with the preceding arguments. The preceding limitation is known in the art of communications. Both Bhogal and Mullins are in the same field of endeavor, and teach compensation for dropped calls. Satapathy teaches the mobile station determines that it has experienced a dropped call; in response, the mobile station allows a user to continue communicating, such as by recording the user's

speech; the mobile station plays out the recorded speech, such as upon reestablishment of the call ([0009] and [0032]). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Satapathy within the system of Bhogal and Mullins in order to allow participants in dropped calls to continue communicating, and play the recorded communications upon re-establishment of the call. The motivation of combining Bhogal, Mullins, and Satapathy is to prevent loss of data when the signal strength is failed. Therefore, the rejection is maintained and is made final.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

La Due	6,185,198	02/06/2006
Nagy et al.	2003/0119478	06/26/2003
Varley	2003/0216185	11/20/2003
Holly et al.	US 6,567,657	05/20/2003

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A. Gelin whose telephone number is (571) 272-7842. The examiner can normally be reached on 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JGelin
February 1, 2008

JEAN GELIN
PRIMARY EXAMINER

